

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-17 (Canceled)

18. (Currently Amended) A hybrid drive for a motor vehicle with a drive train (1), comprising

- a combustion engine (2) and a vehicle transmission (3) with variable gear ratio and
- first and second electrical machines (4,6) each of which can be operated both as a motor and a generator, each of which comprises a stator (34, 44) and a rotor (38, 48), with
- the second electrical machine (6) being in a permanent nonpositive connection with an input (5) of the vehicle transmission,
- first and second shiftable clutches (7, 8) each arranged between the electrical machines (4, 6) and the drive shaft of the combustion engine (2), and with
- the electrical machines (4, 6) connected with each other and also connectable with an electrical energy source (12) via a power actuation control (11), with
- the two electrical machines (4, 6) arranged in a common housing (20), ~~characterized in that wherein~~
- the two stators (34, 44) of the electrical machines (4, 6) and the power actuation control (11) are accommodated along a circumference of ~~on~~ a common carrier (22) which comprises a cooler (52) integrally formed in the common carrier for cooling ~~at least one of: a)~~ the stators (34, 44) and ~~b)~~ the power actuation control (11).

19. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the carrier (22) has an essentially hollow cylindrical portion, with the one stator being arranged at its inner wall (24) and the other stator being arranged at its outer wall (26).

20. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 18, characterized in that both stators are arranged either at the inner wall or at the outer wall of the common carrier (22).

21. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 19, characterized in that the hollow cylindrical portion of the carrier (22) has a cross section that is one of circular and polygonal ring-shaped cross section.

22. (Withdrawn) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the carrier (22) accommodates a hydraulic manifold plate (70) at its inner wall (24) and/or its outer wall (26).

23. (Withdrawn) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the first shiftable clutch (7) and the first electrical machine (4) and the second shiftable clutch (8) and the second electrical machine (6) are arranged in series in the drive train (1) between the combustion engine (2) and the vehicle transmission (3).

24. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the first shiftable clutch (7) and the first electrical machine (4) are arranged in a parallel side train (9) which branches off the drive train (1) between the combustion engine (2) and the second shiftable clutch (8) in such a manner, that the first electrical machine (4) can be disengaged from the combustion engine (2) by the first clutch (7) and the second electrical machine (6) by the second clutch (8).

25. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the first electrical machine(4) is connected with a hydraulic pump (10) of the vehicle transmission (3).

26. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the first electrical machine (4) is connected with at least one of several auxiliary units of the motor vehicle for driving said at least one of several auxiliary units.

27. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the second electrical machine (6) has a higher power consumption/output than the first electrical machine (4).

28. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the vehicle transmission is an automatic transmission (3).

29. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the power actuation control (11) is divided into several modules (36) each of which being electrically connected with at least one of: a) the stator and b) the rotor coils (22, 24), with the modules (36) being arranged distributed at the circumference of the electrical machine and coupled with the cooler (52) of the carrier (22) in a thermally conductive manner.

30. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 29, characterized in that the modules (36) of the power actuation control (11) are radially arranged at the outside of the cooler (52).

31. (Withdrawn) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the cooling means is formed by fluid channels (32) crisscrossing the carrier (22).

32. (Previously Presented) The hybrid drive for a motor vehicle according to Claim 18, characterized in that the carrier (22) comprises at least one opening (54) to at least one of the fluid channels (52), into which cooling elements (58) protrude which are arranged at one of the modules (36) of the electronic control circuit.

33. (Withdrawn) The hybrid drive for a motor vehicle according to Claim 18,
characterized in that the cooling elements (58) protruding into the fluid channels (52)
and/or the wall of the fluid channels (52) are designated in such a manner that they cause a
turbulent flow in the fluid flowing in the fluid channels (52).

34. (Withdrawn) A hybrid drive for a motor vehicle with a drive train (1), comprising

- a combustion engine (2) and a vehicle transmission (3) with variable gear ratio and
- a first and second electrical machine (4, 6) which can be operated both as a motor and a generator, each of which comprises a stator (34, 44) and a rotor (38, 48), with
- the second electrical machine (6) being in a permanent nonpositive connection with an input (5) of the vehicle transmission,
- with a shiftable clutch (7, 8) each being arranged between the electrical machines (4, 6) and the drive shaft of the combustion engine (2), and with
- the electrical machines (4, 6) to be connected with each other and/or an electrical energy source (12) via a power actuation control (11), characterized in that
- the two electrical machines (4, 6) are to be arranged in a common housing (20), and
- one of the stators (34, 44) of the electrical machines (4, 6) together with the power actuation control (11) and/or the other stator (44) is accommodated on a common carrier (22).

35. (Withdrawn) The hybrid drive for a motor vehicle according to Claim 34,
characterized in that the common carrier (22) comprises a cooling means (52) for cooling
the stator(s) (34, 44) or the power actuation control (11), respectively.